CONTENTS OF VOLUME 97

NUMBER 1

CAVITY-NESTING MARBLED MURRELETS — *Stuart Johnston and Harry R. Carter* 1

RELATIONSHIPS AMONG SONG ACTIVITY, CONTEXT, AND SOCIAL BEHAVIOR IN THE WARBLING VIREO — *Daryl Howes-Jones* 4

DEVELOPMENT AND USE OF TWO SONG FORMS BY THE EASTERN PHOEBE — *Donald E. Kroodsma* 21

STRUCTURE AND VARIABILITY IN THE VOCAL REPERTOIRE OF THE MOUNTAIN CHICKADEE — *Philip K. Gaddis* 30

VARIATION IN THE SONGS OF FEMALE BLACK-HEADED GROSBEAKS — *Gary Ritchison* 47

EVENING ROOSTS OF THE SNAIL KITE IN FLORIDA — *Paul W. Sykes, Jr.* 57

BEHAVIOR OF YEARLING MALE BLUE GROUSE AND ITS RELATION TO DELAYED BREEDING — *Ian G. Jamieson* 71

BROOD CHRONOLOGY OF THE COMMON RAVEN — *Richard B. Stiehl* 78

ON ATMOSPHERIC MOISTURE AS A FACTOR INFLUENCING DISTRIBUTION OF BREEDING BIRDS IN TEMPERATE DECIDUOUS FOREST — *Daniel R. Petit, Kenneth E. Petit, and Thomas C. Grubb, Jr.* 88

GENERAL NOTES

USE OF SPACE BY TERRITORIAL MALE BLUE GROUSE — *Richard A. Lewis* 97

CHANGES IN FIVE-STRIPED SPARROW SONG IN INTRA- AND INTERSEXUAL CONTEXTS — *Kathleen Groschupf* 102

SANDHILL CRANE USE OF NEST MARKERS AS CUES FOR PREDATION — *John D. Reynolds* 106

NORTHERN HARRIER KILLS SANDHILL CRANE — *David L. Genter* 108

WATER-CROSSING BEHAVIOR OF RAPTORS DURING MIGRATION — *Paul Kerlinger* 109

SEX RATIOS IN BROODS OF COOPER'S HAWKS — *Robert N. Rosenfield, John Bielefeldt, Raymond K. Anderson, and William A. Smith* 113

DIVING RHYTHMS AND DIURNAL ROOSTING TIMES OF PELAGIC CORMORANTS — *Keith A. Hobson and Spencer G. Sealy* 116

USE OF URBAN STORMWATER CONTROL IMPOUNDMENTS BY WETLAND BIRDS — *Lowell W. Adams, Louise E. Dove, and Thomas M. Franklin* 120

EXTRA-PAIR FEEDING IN WESTERN GREBES — *L. Scott Forbes* 122

AN AUXILIARY WITH A MATED PAIR AND FOOD-CACHING BEHAVIOR IN THE FISH CROW — *Douglas B. McNair* 123

CLUTCH SIZE INCREASE AND INTRASPECIFIC BROOD PARASITISM IN THE YELLOW-BILLED CUCKOO — *Robert C. Fleischer, Michael T. Murphy, and Lawrence E. Hunt* 125

BATHING BEHAVIOR OF PURPLE MARTINS — *Richard A. Wolinski* 127

FIRST BREEDING RECORD OF THE SNOW BUNTING FOR BRITISH COLUMBIA — *R. Wayne Campbell and Brigitta M. Van Der Raay* 128

ERRATA — 20

SUTTON AWARD — 46

JOINT MEETING ANNOUNCEMENT — 56

ORNITHOLOGICAL LITERATURE — 130

INFORMATION FOR AUTHORS — 138

ANNOUNCEMENTS — 140

NUMBER 2

OBSERVATIONS ON NESTING ORNATE HAWK-EAGLES IN GUATEMALA
Bruce Lyon and Albert Kuhnigk 141

A MODEL OF ENERGY CONSUMPTION IN BALD EAGLES: AN EVALUATION OF NIGHT COMMUNAL ROOSTING ..... *George P. Keister, Jr., Robert G. Anthony, and H. Richard Holbo* 148

CAUSES OF RECORDING ERRORS IN SINGING BIRD SURVEYS ..... *Jonathan Bart* 161

PATTERNS OF ASSOCIATION OF SECONDARY SPECIES IN ROOSTS OF EUROPEAN STARLINGS AND COMMON GRACKLES ..... *Donald F. Caccamise and Joseph Fischl* 173

BREEDING ROBINS AND NEST PREDATORS: EFFECT OF PREDATOR TYPE AND DEFENSE STRATEGY ON INITIAL VOCALIZATION PATTERNS
Bradley M. Gottfried, Kathryn Andrews, and Michaela Haug 183

AGGREGATIONS OF CORY'S SHEARWATERS (*CALONECTRIS DIOMEDEA*) AT GULF STREAM FRONTS
J. Christopher Haney and Philip A. McGillivary 191

BROWN PELICAN POPULATIONS AND POLLUTANTS IN TEXAS 1975–1981
Kirke A. King, David R. Blankinship, Emilie Payne, Alexander J. Krynitsky, and Gary L. Hensler 201

GENERAL NOTES

HOME RANGE AND HABITAT USE OF FOREST-DWELLING MALLARDS IN MINNESOTA
Ronald E. Kirby, John H. Riechmann, and Lewis M. Cowardin 215

OBSERVATIONS OF THE FORMATION OF A SAGE GROUSE LEK ..... *Robert J. Gates* 219

NEST USURPATION AND FEMALE COMPETITION FOR BREEDING OPPORTUNITIES BY TREE SWALLOWS ..... *David Leffelaar and Raleigh J. Robertson* 221

WINTERING BALD EAGLES ALONG THE RIO YAQUI, SONORA, MEXICO
Bryan T. Brown and Peter L. Warren 224

FOOD HABITS OF RICHARDSON'S MERLINS IN SOUTHEASTERN MONTANA ..... *Dale M. Becker* 226

RAPTORS KILLING RAPTORS ..... *Daniel Klem, Jr., Brian S. Hillegass, and Diane A. Peters* 230

ANTS AND FORAGING BEHAVIOR OF THE COLLARED FOREST-FALCON ..... *Nora M. Mays* 231

CASPIAN TERNS RESPOND TO RATTLESNAKE PREDATION IN A COLONY ..... *James S. Quinn* 233

ACORN WOODPECKER MUTILATES NESTLING RED-BREASTED SAPSUCKERS ..... *W. David Shuford* 234

TIMING OF PRIMARY MOLT IN FIRST-YEAR GOLDEN-PLOVERS AND SOME EVOLUTIONARY IMPLICATIONS ..... *Oscar W. Johnson* 237

WING MOLT BY A NESTING PIED-BILLED GREBE ..... *James E. Otto and David L. Strohmeyer* 239

PARTITION OF WATER LOSS FROM THE EGGS OF THE SOOTY TERN BETWEEN THE PRE-PIPPING AND PIPPED PERIODS ..... *G. C. Whittow* 240

DETERMINING WHETHER COMMON LOON EGGS HAVE HATCHED ..... *Robert Alvo* 242

EASTWARD RANGE EXPANSION OF THE MARBLED GODWIT IN SOUTH AMERICA
Raymond McNeil, José Ramón Rodriguez S., and Francine Mercier 243

A RECORD OF EXTREME LEUCISM IN THE CAROLINA WREN ..... *Joseph J. Seneca* 244

ORNITHOLOGICAL LITERATURE 245

SPECIAL CONSERVATION REVIEW 259

ANNOUNCEMENTS 172, 258, 263

NUMBER 3

BEHAVIOR AND NESTING BIOLOGY OF THE ST. ANDREW VIREO
Jon C. Barlow and Stephen V. Nash 265

DISPLAY AND RELATED BEHAVIOR OF MALE PIN-TAILED MANAKINS
Barbara K. Snow and D. W. Snow 273

SPERM RELEASE IN MIGRATING WOOD-WARBLERS (PARULINAE) NESTING AT HIGHER LATITUDES
W. B. Quay 283

MOLT MIGRATION OF LARGE CANADA GEESE ON THE WEST COAST OF HUDSON BAY
Rolph A. Davis, Rene N. Jones, Charles D. MacInnes, and Allan J. Pakulak 296

AN AERODYNAMIC BASIS FOR SELECTING TRANSMITTER LOADS IN BIRDS
Donald F. Caccamise and Robert S. Hedin 306

NEST SITE USE BY CAVITY-NESTING BIRDS OF THE CARIBOO PARKLAND, BRITISH COLUMBIA
Barbara Peterson and Gilles Gauthier 319

EFFECT OF VOLES ON MATING SYSTEMS IN A CENTRAL WISCONSIN POPULATION OF HARRIERS
Frances Hamerstrom, Frederick N. Hamerstrom, and Charles J. Burke 332

COMPARATIVE HABITAT USE BY LOUISIANA AND NORTHERN WATERTHRUSHES ..... *Robert J. Craig* 347

GENERAL NOTES

AN ECOLOGICAL COMPARISON OF THE AVIFAUNAS OF GRENADA AND TOBAGO, WEST INDIES
Joseph M. Wunderle, Jr. 356

SEASONAL DISTRIBUTION OF SUBADULT BALD EAGLES IN THREE MINNESOTA HABITATS
James D. Fraser, L. D. Frenzel, John E. Mathisen, and Mark E. Shough 365

SKUA PREDATION ON PENGUIN EGGS: THE INFLUENCE OF EGG QUALITY AND LOCATION
M. de L. Brooke 366

EARLY AUTUMN MOVEMENTS AND PREBASIC MOLT OF SWAINSON'S THRUSHES
Jeffrey D. Cherry 368

NEST-DEFENSE OF THE FLORIDA SCRUB JAY AND THE PROBLEM OF "INCUBATION" BY MALE PASSERINES ..... *Jack P. Hailman and Glen E. Woolfenden* 370

NESTLING FEEDING SCHEDULES OF TURQUOISE-BROWED MOTMOTS IN YUCATÁN, MEXICO
Mark W. Martin and Robert F. Martin 372

ARRIVAL AND DEPARTURE PATTERNS OF GREAT BLUE HERONS AT A SOUTH DAKOTA COLONY
Eileen M. Dowd and Lester D. Flake 374

NOTES ON THE RELATIONSHIPS OF ISLAND AREA AND DISTANCE FROM MAINLAND TO THE PRESENCE OF HERRING GULL COLONIES IN LAKE NIPIGON, ONTARIO
Kevin Timoney, Jim Rogers, and Anne Robinson 378

INTERACTIONS BETWEEN HOUSE SPARROWS AND COMMON GROUND-DOVES ON WALKER'S CAY, BAHAMAS ..... *Jerome A. Jackson and Bette J. Schardien Jackson* 379

COMMENTARY AND OBSERVATIONS ON THE ALLEGED TRANSPORTATION OF EGGS AND YOUNG BY CAPRIMULGIDS ..... *H. D. Jackson* 381

TEMPERATURE FLUCTUATIONS AND NESTING BEHAVIOR OF ROCK WRENS IN A HIGH-ALTITUDE ENVIRONMENT
Licia Wolf, Richard M. Lejnieks, Cathy R. Brown, and Joseph Yarchin 385

A SECOND BROOD BY CANADA GEESE ..... *David H. Brakhage* 387

A FOUR-EGG CLUTCH OF THE MOUNTAIN PLOVER
Michael J. Hamas and Walter D. Graul 388

TERRITORIAL BEHAVIOR OF AMERICAN CROWS ..... *Lawrence Kilham* 389

THE STATUS OF THE SOOTY STORM-PETREL IN HAWAII
Mark J. Rauzon, Craig S. Harrison, and Sheila Conant 390

VOCAL IMITATION IN A CAPTIVE PURPLE MARTIN — *Eugene S. Morton* 392

OBSERVATIONS OF A TUFTED TITMOUSE AND A CATTLE EGRET ASSOCIATING WITH A BLACK BEAR — *Tommy R. Smith* 395

ABNORMAL YELLOW EYE RING ON A TROPICAL KINGBIRD
Floyd E. Hayes, William S. Baker, and Kent R. Beaman 395

ORNITHOLOGICAL LITERATURE — 397

ADDITIONS TO THE BOOK LIST OF THE JOSSELYN VAN TYNE MEMORIAL LIBRARY — 405

ANNOUNCEMENTS — 331, 411

NUMBER 4

A NEW SPECIES OF TANAGER (EMBERIZIDAE: THRAUPINAE, *TANGARA*) FROM SOUTHERN PERU
Thomas S. Schulenberg and Laurence C. Binford 413

GENETIC EVIDENCE FOR RELATIONSHIPS AMONG THE RED-EYED, YELLOW-GREEN, AND CHIVI VIREOS
Ned K. Johnson and Robert M. Zink 421

NORTHERN CARDINAL SONG IN THREE FOREST HABITATS IN EASTERN TEXAS
Mary E. Anderson and Richard N. Conner 436

REPRODUCTIVE ENERGETICS OF BLUE-EYED SHAGS IN ANTARCTICA
Neil P. Bernstein and Stephen J. Maxson 450

INTERSPECIFIC RELATIONSHIPS BETWEEN AMERICAN COOTS AND WATERFOWL DURING FALL MIGRATION — *William R. Eddleman, Craig T. Patterson, and Fritz L. Knopf* 463

WETLAND SELECTION BY MALLARDS AND BLUE-WINGED TEAL
John H. Mulhern, Thomas D. Nudds, and B. Richard Neal 473

TIME-ACTIVITY BUDGET FOR BREEDING GREATER GOLDEN-PLOVERS IN NORWEGIAN MOUNTAINS
Ingvar Byrkjedal 486

INTRASEASONAL MOVEMENT BETWEEN COLONY SITES BY CASPIAN TERNS IN THE GREAT LAKES
Francesca J. Cuthbert 502

MOVEMENT OF MOJAVE DESERT SPARROW FLOCKS — *John Eichinger and David J. Moriarty* 511

SURVIVORSHIP IN THE TUFTED TITMOUSE — *William H. Elder* 517

GENERAL NOTES

HABITAT AND SNAG SELECTION BY WOODPECKERS IN A CLEAR-CUT: AN ANALYSIS USING ARTIFICIAL SNAGS
Daniel R. Petit, Kenneth E. Petit, Thomas C. Grubb, Jr. and Lisa J. Reichhardt 525

DIFFERENCES IN THE FEEDING BEHAVIOR OF LITTLE EGRETS (*EGRETTA GARZETTA*) IN TWO HABITATS IN THE CAMARGUE, FRANCE
R. Michael Erwin, Heinz Hafner, and Patrick Dugan 534

INTERACTIONS BETWEEN GREAT BLUE HERONS AND GULLS — *Range D. Bayer* 538

CIRCUMSTANTIAL EVIDENCE OF FORAGING INTERFERENCE BETWEEN TWO SPECIES OF DABBLING DUCKS — *Hannu Pöysä* 541

BAND-RUMPED STORM-PETREL OCCURRENCES IN RELATION TO UPWELLING OFF THE COAST OF THE SOUTHEASTERN UNITED STATES — *J. Christopher Haney* 543

NEST, SEASONAL MOVEMENTS, AND BREEDING OF BUFFY HUMMINGBIRDS IN XERIC HABITATS OF NORTHEASTERN VENEZUELA — *Raymond McNeil and José Ramón Rodriguez S.* 547

BROOD-REARING AND POSTBREEDING HABITAT USE BY VIRGINIA RAILS AND SORAS
Rex R. Johnson and James J. Dinsmore 551

GROWTH RATES AND DEVELOPMENT OF REDHEAD DUCKLINGS — *Jill P. Lightbody* 554

KIN CANNIBALISM IN THE PURPLE GALLINULE ..... *Laurie A. Hunter* 560
INFLUENCE OF VARIOUS LAND USES ON WINDBREAK SELECTION BY NESTING MISSISSIPPI KITES
Diane Love, Joseph A. Grzybowski, and Fritz L. Knopf 561
SPECIES-AREA RELATIONSHIP OF BIRDS ON SMALL ISLANDS AT ISLE ROYALE, MICHIGAN
Joseph Van Buskirk 566
AVOIDANCE OF ACOUSTIC INTERFERENCE BY OVENBIRDS
Robert W. Ficken, James W. Popp, and Paul E. Matthiae 569
GILA WOODPECKER STORES ACORNS ..... *M. H. MacRoberts and B. R. MacRoberts* 571
BROWN NODDY ATTACKS MOUSE ..... *Harold Heatwole* 571
EASTERN SCREECH-OWL CAPTURES GOLDFISH IN PATIO POND ..... *Kenneth W. Prescott* 572
ORNITHOLOGICAL LITERATURE 574
PROCEEDINGS OF THE SIXTY-SIXTH ANNUAL MEETING 591
CHANGES IN FORMAT 606
ANNOUNCEMENTS 435, 608
INDEX 609